CLAIMS

1. A method for distributing web content objects efficiently across a network of information processing units and intermediate nodes, the method on an information processing unit comprising the steps of:

receiving a web content object; and

sending a single copy of the web content object across the network via intermediate nodes to a set of destinations using a reliable multicast technique.

2. The method as defined in claim 1, wherein the reliable multicast technique comprises a reliable small group multicast technique.

3. An information processing unit for distributing web content objects efficiently across a network of information processing units and intermediate nodes, the information processing unit comprising:

a reception unit for receiving a web content object and a set of destinations to which the web content object should be delivered; and

a transmission unit for transmitting a single copy of the web content object across the network via intermediate nodes to a set of destinations using a reliable multicast technique.

4. The information processing unit as defined in claim 3, wherein the reliable multicast technique comprises a reliable small group multicast technique.

5. The information processing unit as defined in claim 3, wherein the transmission unit operates according to a communication protocol to process ACKs and NAKs as well as packet retransmissions.

6. A computer readable medium including instructions for distributing web content objects efficiently across a network of information processing units and intermediate nodes, the computer readable medium comprising instructions for:

receiving a web content object created by a user and a set of destinations to which the web content object should be sent; and

sending a single copy of the web content object across the network via intermediate nodes to a set of destinations using a reliable multicast technique.

7. The computer readable medium as defined in claim 6, wherein the reliable multicast technique comprises a reliable small group multicast technique.

8. A method for distributing web content objects efficiently across a network of information processing units and intermediate nodes, the method on an intermediate node comprising the steps of:

receiving a multicast packet;

determining one or more "next hops" that the packet should be forwarded to; and

forwarding one copy of the packet to each of the "next hops".

9. The method as defined in claim 8, wherein the determining and forwarding steps use a Small Group Multicast scheme.

10. The method as defined in claim 8, further comprising the step of:

repetitively executing the determining and forwarding steps for a plurality of one or more packets.

11. The method as defined in claim 8, further comprising the steps of:

processing ACKs and/or NAKs; and

performing packet retransmissions.

12. The method as defined in claim 8, wherein the packet comprises a small group multicast packet.

13. A computer readable medium including instructions for distributing web content objects efficiently across a network of information processing units and intermediate nodes, the computer readable medium comprising instructions for:

receiving a packet containing address information for a set of destinations;

determining the "next hops" for those destinations; and

replicating the packet for each "next hop".

14. The computer readable medium as defined in claim 13, further comprising the instruction for:

forwarding a copy of the packet to each "next hop".

15. The computer readable medium as defined in claim 14, further comprising the instructions for:

repetitively executing the determining, replicating and forwarding steps for each newly received packet.

16. The computer readable medium as defined in claim 13, further comprising the instructions for:

processing ACKs and/or NAKs; and

performing packet retransmissions.

17. An intermediate node for distributing web content objects efficiently across a network of information processing units and intermediate nodes, the intermediate node comprising:

a reception unit for receiving a packet containing address information for a set of destinations;

a determination unit for determining a "next hop" for each of the destinations; and

a copying unit for replicating the packet for each of the "next hops".

18. The intermediate node as defined in claim 17, further comprising:

a forwarding unit for forwarding a copy of the packet to each of the "next hops".

19. The intermediate node as defined in claim 18, further comprising:

a repeater unit for repetitively executing the determining, replicating and forwarding for a plurality of multicast packets.

20. The intermediate node as defined in claim 19, further comprising:

an acknowledge unit for processing ACKs and/or NAKs; and

a retransmit unit for handling packet retransmissions.